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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,491	03/18/2005	Daniel Willem Elisabeth Schobben	NL 021003	5041

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EXAMINER

LAO, LUN S

ART UNIT PAPER NUMBER

2615

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

10/528,491

Applicant(s)SCHOBEN, DANIEL WILLEM
ELISABETH**Examiner**

Lun-See Lao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11-28-2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. This action is in response to the application filed on 03-18-2005. Claims 1-7 are pending.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:

- (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
- (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

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- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

— A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Myers (US PAT. 4,817,149).

Consider claim 1 Myers teaches a sound reproduction system comprising:

an audio processor (see fig.1) with a filter arranged for applying a first head related transfer function (reads on finite impulse response (FIR), fig.7 (F1)) over a

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predetermined first frequency range to an input audio signal from an audio signal source (110), and yielding an output audio signal for a sound production means (190,192)(see col. 6 line 23-62); and

a first data source (pick up by microphones 196,198), which is arranged for delivering first filter coefficients of the first head related transfer function to the filter (see col. 17 line 66-col. 18 line 43), characterized in that

a second data source (such as, a table of predetermined parameters stored in memory) is comprised, which is arranged for delivering second filter coefficients (reads on finite impulse response ((FIR), because it includes coefficients) of a second head related transfer function (F2) over a predetermined second frequency range, unequal to the first frequency range, to the filter for filtering the input audio signal yielding the output audio signal (190,192) (see figs. 1, 3-7 and col. 8 line 24-68 and col. 17 line 65-col. 18 line 27).

Consider claims 2-3 Myers teaches a microphone (see fig.27, (196,198)) is included for performing a sound measurement (see col. 18 line 8-col. 19 line 27); and the first data source comprises coefficient calculation means (reads on finite impulse response ((FIR) F1, because it includes coefficients) for calculating the first filter coefficients from the sound measurement (col. 8 line 24-68); and the second data source (such as, a table of predetermined parameters stored in memory) comprises a memory for storing data related to the second head related transfer function filter (F2 and see col. 6 line 23-62); and a sound reproduction system characterized in that the second data source (such as, a table of predetermined parameters stored in memory)

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comprises calculating means for calculating the second filter coefficients based on data from the memory (see col.6 line 23-62 and col. 17 line 65-col. 18 line 27).

Consider claim 4 Myers teaches a computer program for execution by a processor, describing a method of sound reproduction comprising the steps (see fig.1):

obtaining coefficients (reads on finite impulse response ((FIR), because it includes coefficients) of a first head related transfer function (reads on finite impulse response (FIR), fig.7 (F1)) from a first data source (see fig.1, 110);

applying a first head related transfer function filtering (F1) to an input audio signal from an audio signal source (110), yielding an output audio signal (190,192),

characterized in that the computer program comprises further steps in its method of:

obtaining coefficients of a second head related transfer function (F2) from a second data source (such as, a table of predetermined parameters stored in memory) (see col. 17 line 65-col. 18 line 27); and

applying a second head related transfer function filtering (F2) to an input audio signal from an audio signal source (110), yielding an output audio signal (190,192 and see col. 6 line 23-62).

Consider claim 5 Myers teaches a data carrier storing a computer program for execution by a processor, describing a method of sound reproduction comprising the steps (see fig.1):

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obtaining coefficients (reads on finite impulse response ((FIR), because it includes coefficients) of a first head related transfer function (reads on finite impulse response (FIR), fig.7 (F1)) from a first data source (see fig.1, 110);

applying a first head related transfer function filtering (F1) to an input audio signal from an audio signal source (110), yielding an output audio signal (190,192 and see col. 6 line 23-62),

characterized in that the data carrier stores further steps of the method:

obtaining coefficients of a second head related transfer function (F2) from a second data source (such as, a table of predetermined parameters stored in memory) (see col. 17 line 65-col. 18 line 27); and

applying a second head related transfer function filtering (F2) to an input audio signal from an audio signal source (110), yielding an output audio signal (190,192 and see col. 6 line 23-62).

Consider claim 6 Myers teaches a data carrier storing (see fig.1) a first head related transfer function (reads on finite impulse response (FIR), fig.7 (F1)) over a first predetermined frequency range (see col.8 lines 24-68), characterized in that also a second head related transfer function (F2) over a second predetermined frequency range is stored (see col. 17 line 65-col. 18 line 27), and the second head related transfer function (F2) comprises complementary information, improving the simulation of sound from a loudspeaker by means (see figs. 3-6) of sound production means (190,192 and see col. 6 lines 23-62).

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Consider claim 7 Myers teaches a signal transmission system (see fig.1) transmitting a first head related transfer function (reads on finite impulse response (FIR), fig.7 (F1)) over a first predetermined frequency range (see col.8 lines 24-68), characterized in that also a second head related transfer function (F2) over a second predetermined frequency range is transmitted (see col. 17 line 65-col. 18 line 27), and the second head related transfer function (F2) comprises complementary information, improving the simulation of sound from a loudspeaker by means (see figs. 3-6) of sound production means (190,192 and see col. 6 lines 23-62).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tucker (US PAT. 5,742,689) is cited to show other related sound reproduction system, program and data carrier.

6. Any response to this action should be mailed to:

Mail Stop ____ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501 The examiner


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can normally be reached on Monday-Friday from 8:00 to 5:30.

- If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

L.S.
Lao, Lun-See
Patent Examiner
US Patent and Trademark Office
Knox
571-272-7501
Date 11-06-2006


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600